

REMARKS

Claims 1-20 are pending in the application.

Claims 1-20 stand rejected in the application.

I. REJECTIONS UNDER 35 U.S.C. §112

Claims 3-5 and 8-20 stand rejected under 35 U.S.C. §112, first paragraph. More specifically, the Examiner asserts that the specification fails to state or teach one of ordinary skill in the art what constitutes "similar radii of curvatures" and also how and to what extent shear forces on the wafer are minimized. In response, Applicants respectfully traverse these rejections. Referring to paragraph [0030] and Figure 9, it can be easily seen that the template 26 and mold 28 are bent in a radius of curvature similar to the radius of curvature of wafer 30. Further, the minimization of shear forces is discussed in paragraph [0031].

Claims 1-20 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse.

With respect to claims 1 and 5, "said layer" has been modified to eliminate the antecedent basis problem.

With respect to claim 3 and the recitation of "said region," the region refers to surfaces on the wafer.

With respect to claims 3 and 12 and the recitation of the "similar radii of curvatures," the Examiner is respectfully requested to refer to Figure 9 to see what is meant by similar radii of curvatures as recited within these claims. By reviewing Figure 9 and the accompanying description, one skilled in the art at the time the invention was made would be able to understand what is meant by this recitation.

Claim 6 has been amended to correct the antecedent basis problem noted by the Examiner.

In claims 8-11, 15 and 17-20, the step of "bending" refers to bending of the wafer.

With respect to claims 11 and 20, the minimizing limitation has been addressed above.

### III. REJECTION UNDER 35 U.S.C. § 103

Claims 1-20 stand rejected under 35 U.S.C. § 103 as being unpatentable over *White et al.* (article, "Novel Alignment System for Imprint Lithography"). In response, Applicants respectfully traverse this rejection.

*White* clearly discloses on page 3555 that it is only capable of deformations in the X and Y directions using the piezoelectric actuators shown in Fig. 4a. All of the claims in the application have been amended to now recite that the wafer and mold are bent as shown in Figure 9, with arcuate shapes. This is not possible or even contemplated by *White*. As a result, one skilled in the art at the time the invention was made, would not have been able to recreate the claimed invention in view of *White*. The translational x and y displacements taught in *White* are not the same as the x, y and z bending to achieve arcuate shapes.

Claim 1 stands rejected under 35 U.S.C. § 103 as being obvious over *Ruben* (U.S. Patent No. 6,929,762). Since claim 1 has been amended, this rejection is moot.

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being obvious over *Choi et al.* (U.S. Patent No. 6,980,282). Since claim 1 has been amended, this rejection is moot.

Claims 2-20 stand rejected under 35 U.S.C. § 103 as being unpatentable over either *Ruben* or *Choi* as applied to claim 1 and further in view of either *Stagaman* (U.S. Patent No. 5,563,684), *Feldman et al.* (article, "Wafer Chuck for Magnification Correction in X-Ray Lithography") or *White*. In response, Applicants respectfully traverse these rejections.

Applicants have already sufficiently asserted above that *White* in no way teaches or suggests an ability to bend the wafer and mold into arcuate shapes. *Ruben* (in Fig. 7) and *Stagaman* (in Fig. 12) also only show x and y translational displacements. The same is true for *Feldman* and *Stagaman*.

*Stagaman* has nothing to do with imprint lithography systems. Instead, *Stagaman* is merely disclosing a system for modifying the shape of a wafer that is being subjected to photolithography processes. Therefore, there is no mold being subjected to tensional stresses and having dimensional variations being created.

*Feldman* is also not applicable to imprint lithography systems, and is limited to x-ray lithography. All that *Feldman* discloses is that the wafer can be curved. However, there is nothing within *Feldman* that teaches or suggests that a mold may be subjected to tensional stresses or contoured to have a similar radii of curvature as the wafer.

I. DOUBLE PATENTING REJECTION

Claim 1 stands rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,929,762. Since claim 1 has been amended, this rejection is moot.

*Stagaman* has nothing to do with imprint lithography systems. Instead, *Stagaman* is merely disclosing a system for modifying the shape of a wafer that is being subjected to photolithography processes. Therefore, there is no mold being subjected to tensional stresses and having dimensional variations being created.

*White*, as noted above, is not capable of modifying the shapes of the mold and/or wafer into an arcuate shape. *White* is limited to modifications of the wafer in the X-Y plane only.

*Feldman* is also not applicable to imprint lithography systems, and is limited to x-ray lithography. All that *Feldman* discloses is that the wafer can be curved. However, there is nothing within *Feldman* that teaches or suggests that a mold may be subjected to tensional stresses or contoured to have a similar radii of curvature as the wafer.

As a result, one skilled in the art at the time the invention was made would not have been able to recreate claims 2-20 in view of the cited prior art references used for the double-patenting rejections.

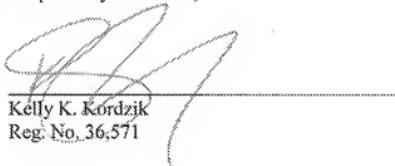
IV. CONCLUSION

As a result of the foregoing, it is asserted by Applicants that the remaining Claims in the Application are in condition for allowance, and respectfully request an early allowance of such Claims.

Applicants respectfully request that the Examiner call Applicants' attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining problems.

Please apply \$225 for the Petition for Two-Month Extension of Time fee and any other charges or credits to deposit account 06-1050.

Respectfully submitted,



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